

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### NURION-RAYCAL CORP.

Delaware Valley Industrial Resource Center

#### Nurion-Raycal Redesigns Lasercane(TM)

##### Client Profile:

RAYCAL Corporation, dba NURION-RAYCAL, specializes in the design and manufacture of personal guidance products utilizing laser and echo-ranging technologies (Electronic Travel Aids, or "ETAs") for the blind, visually impaired, and persons with hemispatial neglect conditions. The company is located in Paoli, Pennsylvania, employs less than 20 people, and is expected to generate sales in excess of \$1.4 million in 2003.

##### Situation:

NURION-RAYCAL's LaserCane™ product line has been a major force in the ETA market since the early 1990s, but availability suffered from labor-intensive, one-by-one manual manufacturing techniques. Significantly increased demand from users, mobility instructors, and various vision-impaired assistance agencies and foundations made it clear that the old method of production could not be sustained. The company needed to redesign the LaserCane to be easily manufactured and commercialized while utilizing current miniaturized aerospace and communications components and multiple layer circuit board design techniques. NURION-RAYCAL contacted the Delaware Valley Industrial Resource Center (DVIRC), a NIST MEP network affiliate, for assistance.

##### Solution:

With DVIRC's assistance, NURION-RAYCAL updated its LaserCane design to include three lasers and to improve the electronics. DVIRC provided electrical drafting support to complete the project, generating schematics and artwork needed to manufacture circuit cards.

NURION-RAYCAL also desired assistance in the commercialization of its LaserCane technology. DVIRC recommended two specialists with expertise in commercialization, and the company selected one. DVIRC helped NURION-RAYCAL obtain funding for this initiative by developing a proposal submitted to the Ben Franklin Technology Partnership (BFTP); the company was awarded a total of \$149,700. This financing allowed NURION-RAYCAL to bring LaserCane products to the market, and the company is forecasting sales of \$1.4 million in the first year of full production.

DVIRC continues to guide NURION-RAYCAL's initiative by participating as an unpaid participant on a Marketing Advisory Board. The organization also continues its work with the company-selected marketing specialist to help ensure successful commercialization of the LaserCane family of products.

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**Results:**

Redesigned product to incorporate state-of-the-art technologies.

Improved manufacturing methods to ready the product for full production.

Procured financing of \$149,700.

Anticipating sales increase of \$1.4 million for next fiscal year.

**Testimonial:**

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